



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,430	07/02/2003	Emmanuel Lardais	28944/40072	5051
29471	7590	11/09/2005	EXAMINER	
MCCRACKEN & FRANK LLP 200 W. ADAMS STREET SUITE 2150 CHICAGO, IL 60606			D ADAMO, STEPHEN D	
			ART UNIT	PAPER NUMBER
			3636	

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/612,430	<b>Applicant(s)</b> LARDAIS ET AL	
	<b>Examiner</b> Stephen D'Adamo	<b>Art Unit</b> 3636	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 24, 2005 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganot et al. (6,095,608) in view of Papon et al. (4,770,464).

Ganot discloses a "vehicle seta fitted with a hinge mechanism" comprising a seat back 4 and a seat proper 2 mounted in a pivotal relationship. Each side of the vehicle seat includes first and second hinges 5 and 6 "which are respectively controlled by handles 7 and 8 and which are connected to each other by a link 9 extending horizontally and transversely relative to the seat" (col.6, lines 53-56). Each hinge comprises a first cheek plate 10, 11 secured to the seat proper and a second cheek plate 12, 13 secured to the seat back. The second cheek plate 12, 13 provides a first set of teeth 30, 31 centered on the pivot axis. Further, a plurality (3) of locking members 26, 27 on each hinge are provided

with a second set of teeth 28, 29 having an angular pitch identical to that of the cheek plate. The locking members are evenly spaced circumferentially from each other by an integer number of teeth and are mounted to move in a substantially radial direction between an active position where the two sets of teeth are in engagement with one another and a retracted position where the two sets of teeth do not cooperate with one another. The specific integer number is moot. However, Ganot fails to teach of circumferential movement of the locking members in one of the hinges. Yet, Pipon discloses "articulation members for back portions of vehicle seats." The articulation members comprise of a tooth ring 1 and three bearing plates 3, 4, 5 with toothed surfaces having the same pitch as the toothed ring. Further, Pipon discloses a certain amount of play in the bearing plates or locking members in a circumferential direction. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify one of the hinge mechanisms of Ganot with Pipon's articulation member, for providing "a compensation in play" of the reclining mechanism. Also, both Pipon's and Ganot's first set of teeth and a second set of teeth are disclosed to have an identical angular pitch when interlocked.

Regarding claim 2, Pipon discloses the minimum angle between the two positions of the back portion is equal to the angular pitch of one tooth. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the compensation in play of the articulation member twice that of one tooth, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Art Unit: 3636

In regards to claims 3-5 Ganot and Pipon disclose guides for guiding the bearing plates or locking members into and out of engagement with the first set of teeth on the cheek plate. Therefore, when the locking members are in the retracted position, they are all in an identical position, relative to the first cheek plate. Moreover, the hinge of Pipon includes the sectors or guides 16, 17, 18 in which the locking members or bearing plates can bear against in the active position. Furthermore, with regards to claim 6, Pipon discloses intermediary parts 22, 23, 24. The intermediary parts ensure a wedging position for the bearing plates 13, 14, 15. Note, Figure 6 of Pipon discloses bearing edges 14b and 15a of the bearing plates or locking members for respective wedges with the set of teeth on each bearing plate.

Regarding claim 8, Pipon discloses slug carriers 22, 23, 24 mounted to slide radially between two guides 16, 17, 18. The slug carriers cooperate to with the control device and connect to a slug or bearing members 13, 14, 15, which engages with the first set of teeth on the cheek plate.

Regarding claim 10, Ganot teaches of a rotary cam, which is urged towards a rest position in which the cam places the locking members in the active/engaging position. Further, the control plate 43 is secured to the cam and includes cutouts 45 adapted to cooperate with pegs provided on each locking member.

In regards to claim 13, Ganot teaches of a lost-motion mechanical coupling which interconnects the control devices of the first and second hinges.

Art Unit: 3636

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganot et al. (6,095,608) in view of Pipon et al. (4,770,464) and in further view of Cilliere et al. (6,561,585).

Ganot discloses a “vehicle seta fitted with a hinge mechanism” comprising a seat back 4 and a seat proper 2 mounted in a pivotal relationship. Each side of the vehicle seat includes first and second hinges 5 and 6, “which are respectively controlled by handles 7 and 8 and which are connected to each other by a link 9 extending horizontally and transversely relative to the seat” (col.6, lines 53-56). Each hinge comprises a first cheek plate 10, 11 secured to the seat proper and a second cheek plate 12, 13 secured to the seat back. The second cheek plate 12, 13 provides a first set of teeth 30, 31 centered on the pivot axis. Further, a plurality (3) of locking members 26, 27 on each hinge are provided with a second set of teeth 28, 29 having an angular pitch identical to that of the cheek plate. The locking members are mounted to move in a substantially radial direction between an active position where the two sets of teeth are in engagement with one another and a retracted position where the two sets of teeth do not cooperate with one another. However, Ganot fails to teach of circumferential movement of the locking members in one of the hinges. Yet, Pipon discloses “articulation members for back portions of vehicle seats.” The articulation members comprise of a tooth ring 1 and three bearing plates 3, 4, 5 with toothed surfaces having the same pitch as the toothed ring. Further, Pipon discloses a certain amount of play in the bearing plates or locking members in a circumferential direction. Pipon fails to further teach of springs and a control plate on the articulation members. Yet, Cilliere teaches the conventionality of

Art Unit: 3636

utilizing both springs and a control plate as claimed. Cilliere teaches of similar articulation members as taught by Pipon and also including springs 27, which urge the locking members to an active position. Moreover, Cilliere discloses a control plate 118 having cutouts 119 adapted to cooperate with projecting pegs provided in the locking members. The cutout has a ramp-shaped cam edge, as seen in Figure 13, which is adapted to hold the corresponding locking member in the active position when the control plate is in the rest position. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Ganot and Pipon with springs and an additional control plate, as taught by Cilliere, for providing a stronger engagement between the two sets of teeth.

***Allowable Subject Matter***

3. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

4. Applicant's arguments filed 27 June 2005 and 24 August 2005 have been fully considered but they are not persuasive.

Applicant states, "while the '464 [Pipon] patent structure allows a certain amount of play, it does not describe or suggest that modifying one of the hinge members to allow play while the other hinge member does not allow any play" (page 7 – Remarks). Furthermore, the applicant continues, "there is no disclosure or suggestion in either '608 [Ganot] patent or the '464 [Pipon] patent of the use of two different hinge mechanisms" (page 7 – Remarks). However, in response

Art Unit: 3636.

to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Pipon's teaching of a hinge mechanism allowing a certain amount of play in Ganot's hinge mechanism for providing a more secure locking of the seat back. Since Pipon's hinge mechanism does allow play, whether the hinge mechanism of Ganot includes a certain amount of play on a single side of the seat or on both sides of the seat is merely a matter of engineering design choice, and thus does not serve to patentably distinguish the claimed invention over the prior art.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen D'Adamo whose telephone number is 571-272-6857. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pete Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




Art Unit: 3636

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SD

sd

November 7, 2005

  
**Peter M. Cuomo**  
**Supervisory Patent Examiner**  
**Technology Center 3600**